Atlas 1010.4.1856

No. ~~Map. 1002.20~~

GIVEN BY
Thomas H. Chandler

G1019 .C37 1856

A Thos. W. Chandler

SCHOOL ATLAS

OF

PHYSICAL GEOGRAPHY,

ILLUSTRATING, IN A SERIES OF MAPS COMPILED FROM THE CELEBRATED ATLASES OF A. KEITH JOHNSTON, AND OF MILNER AND PETERMANN,

THE ELEMENTARY FACTS OF

GEOLOGY, HYDROLOGY, METEOROLOGY, AND NATURAL HISTORY;

AND DESIGNED TO ACCOMPANY CARTÉE'S "ELEMENTS OF PHYSICAL GEOGRAPHY."

BY

CORNELIUS S. CARTÉE, A. M.

PUBLIC LIBRARY
OF THE
CITY OF BOSTON

BOSTON:
HICKLING, SWAN, AND BROWN.
M DCCC LVI.

798

Entered, according to Act of Congress, in the year 1856, by
HICKLING, SWAN, AND BROWN,
In the Clerk's Office of the District Court of the District of Massachusetts.

Thomas H Chandler
Jan 5, 1858
* Atlas 010.4, 1856

EDITOR'S PREFACE.

THE publication of Cartée's "Elements of Physical Geography" at once created a demand for a suitable Atlas to accompany it; and the superiority of the elaborate works of Keith Johnston, and Milner and Petermann, naturally suggested the source from which the materials might be drawn.

Each of the maps and charts has been carefully revised, and more or less altered, so that the learner may readily verify the language of his text book. The charts of the Ocean Currents, River Systems, Rain and Snow, are derived from Milner and Petermann; that of the Winds is from Lieutenant Maury's Sailing Directions; the others are from Johnston.

Extract from the Preface to the Edinburgh edition of Johnston's Atlas. — "PHYSICAL GEOGRAPHY is the history of Nature presented in its most attractive form, the exponent of the wonders which the almighty Creator has scattered so profusely around us. Few subjects of general education are, therefore, so well fitted to expand and elevate the mind, or satisfy the curiosity of youth. Beginning with a representation of the Oceans, Lakes, Rivers, Mountain Chains, Plateaus, and Plains, of the different portions of the globe, it proceeds to the distribution of those elements by which its surface is affected, — Earthquakes, Volcanoes, Heat, Wind, and Rain, — and concludes with the actual occupation of its surface by the different races, families, and species of plants, animals, and man.

"The object of Physical Geography, in treating of inorganic matter, is to represent the Earth in its natural state, divested of the accidental or artificial divisions which have been introduced by man's agency. By a patient study and careful comparison of numerous facts, the knowledge requisite for such a representation has, within a recent period, been greatly extended. Comparative Geography has led to analogous views of the structure of the different Continents, similar to those which comparative anatomy has established in relation to the lower animals and man. The bones and arteries of the latter have their representatives in the mountain chains and river courses of the former. Asia, in its continental mass, presents a picture of majestic unity; Europe, indented and broken up into numerous peninsulas, exhibits an example of the greatest diversity; while the Western Continent is remarkable for its grand simplicity. Again, contrasting climate and position, we find that Africa, presenting the greater part of its surface to the burning rays of a tropical sun, has all its days and nights of nearly equal length — the diversity of the seasons being almost unknown; while, in the frozen regions around the Poles, night extends its absolute empire, day disappears with its radiant *cortége*, or if it shines it is but the longest meteor of a long night.

"Physical Geography teaches that there is an intimate and reciprocal action of Man on the Earth, and of the Earth on Man, without attention to which it is not possible to understand the national character or physical development of a people. In the East, his wants being easily supplied, and having no necessity to struggle with nature, Man resigns himself to indifference and fatalism; while in the West, in order that he may live, he must conquer the obstacles which Nature opposes to his progress; and hence much of the energy, the perseverance, and the intellectual preëminence which characterize the races of the West. The whole character of a nation may, as Dr. Arnold observes, be influenced by its geology and physical geography. 'Who can wonder,' he says, 'that the rich and well-watered plain of the Po should be filled with flourishing cities, or that it should have been contended for so often by successive invaders?' It is the abundance of its coal mines that gives to England its preëminence in the manufacturing world. China is chiefly interesting to us for its cultivation of the tea plant, the Molucca Islands for their spices, and Siberia for its furs. It is owing to the nature of the soil and climate that the Southern States of North America are essentially agricultural; while, from having fewer advantages in this respect, and greater geographical facilities from seaports, the Northern States are almost as essentially manufacturing and commercial. The suggestive character of the Maps will enable the intelligent teacher to draw many such contrasts and comparisons."

C. S. CARTÉE.

CONTENTS.

FRONTISPIECE.	1.	The World in Hemispheres.
GEOLOGY.	2.	The Mountains, Table Lands, and Plains of N. America.
	3.	" " " " S. America.
	4.	" " " " Europe.
	5.	" " " " Asia.
	6.	" " " " Africa.
	7.	" " " " Australia.
HYDROLOGY AND METEOROLOGY.	8.	Chart of the Winds.
	9.	The Distribution of Rain and Snow over the Globe.
	10.	Chart of the Ocean Currents and River Systems.
NATURAL HISTORY.	11.	The Distribution of Vegetable Life over the Globe.
	12.	The Distribution of Animal Life over the Globe.
	13.	The Distribution of the Races of Man over the Globe.

Digitized by the Internet Archive
in 2015

https://archive.org/details/schoolatlasofphy00cart

THE WORLD

IN HEMISPHERES,

Designed to Accompany

CARTÉE'S

PHYSICAL & POLITICAL GEOGRAPHY.

NOTE

The height of Mountains &c is indicated by a scale of English feet, on the margin of the map. The length of Rivers is stated in English miles, under the names.

Waterfalls.

1. Niagara, 2. Missouri, 3. Evanson, 4. Oonvarnie, 5. Stubbinach, 6. Lutea, 7. Terni, 8. Hunderrund, 9. Sinave, of Juniata, 10. Gangutri, 11. Gorsipa, 12. Cavery.

WESTERN HEMISPHERE

EASTERN HEMISPHERE

North Pole

South Pole

North Frigid Zone

South Frigid Zone

North Temperate Zone

South Temperate Zone

Torrid Zone

Equator

Tropic of Cancer

Tropic of Capricorn

Arctic Circle

Antarctic Circle

NORTH PACIFIC OCEAN

SOUTH PACIFIC OCEAN

NORTH ATLANTIC OCEAN

SOUTH ATLANTIC OCEAN

INDIAN OCEAN

ARCTIC OCEAN

ANTARCTIC OCEAN

SOUTHERN OCEAN

NORTH AMERICA

SOUTH AMERICA

EUROPE

ASIA

AFRICA

AUSTRALIA

Sahara or Great Desert

Soudan or Negro Land

American & European Waterfalls

Asiatic Waterfalls

Level of the Sea

AMERICAN EUROPEAN AFRICAN ASIATIC

Entered according to Act of Congress in the year 1856 by Hickling Swan & Brown in the Clerks Office of the District Court of Massachusetts

Engraved by W. H. Brown

MAP OF SOUTH AMERICA.

Designed to Illustrate

CARTÉE'S

PHYSICAL & POLITICAL GEOGRAPHY.

Scale of Miles

100 200 300 400 500 600

Explanation

Mountain Chains, represented thus — *The broader the line the greater is the elevation*
The highest points are marked with circles thus ○
and the Elevation is uniformly given in English Feet.
Table lands or Plateaus, colored Buff
Plains, Valleys, and Low lands, colored Green
Woodlands *Pampas*

Entered according to Act of Congress in the year 1856 by Hickling Swan & Brewer in the Clerks Office of the District Court of Massachusetts

Engraved by C. W. Bowditch

Entered according to Act of Congress in the ... to be the thirteen years in the Clerks Office of the District Court of Massachusetts

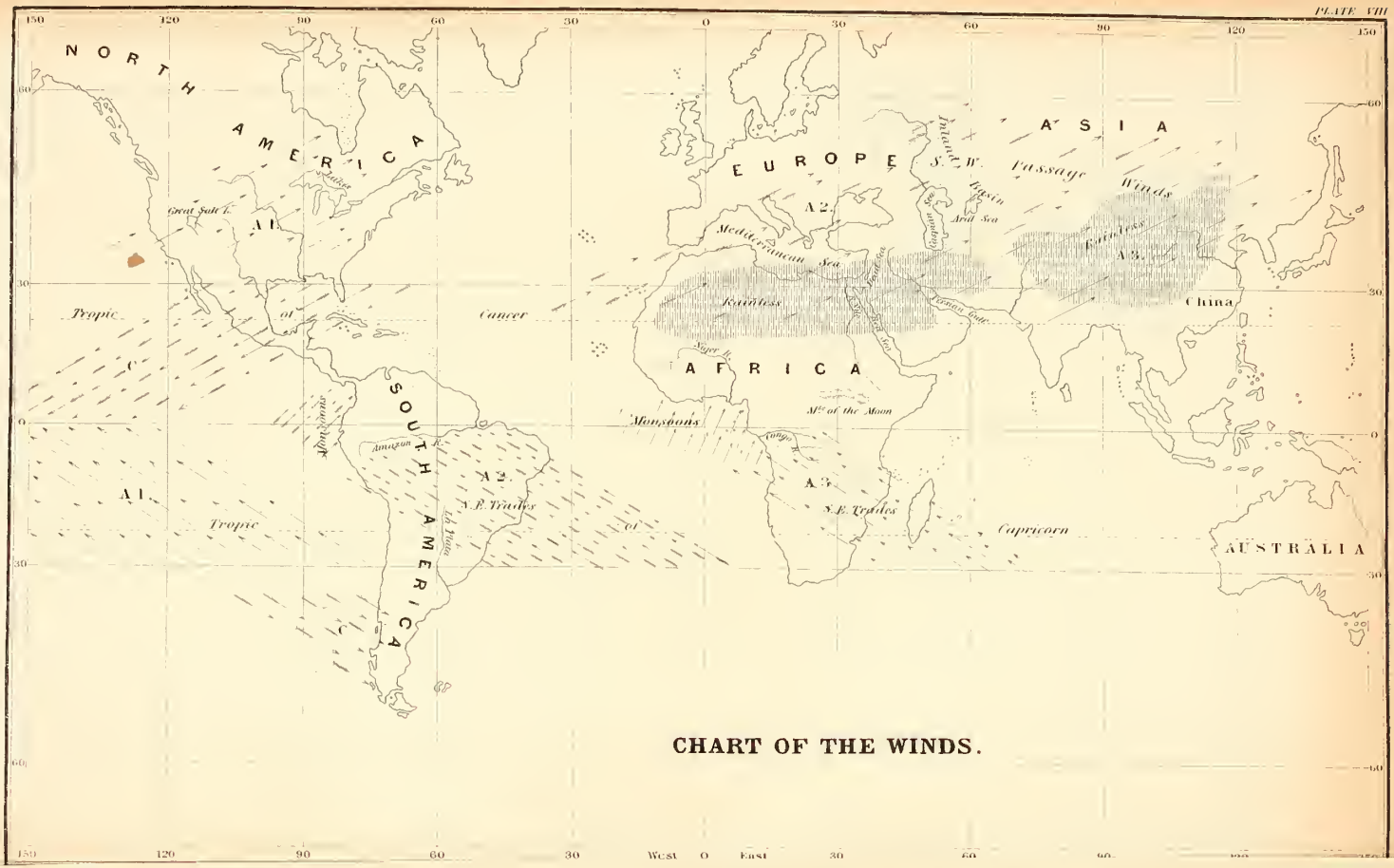
MAP OF
ASIA
Designed to Illustrate
CARTTE'S
PHYSICAL & POLITICAL GEOGRAPHY.
Scale of Miles
100 500 1000
Explanation.
Mountain Chains represented thus
The broader the line the greater is the elevation
the highest points are marked with circles thus
and the Elevation is uniformly given in English Feet
Table lands or Plateaus colored Buff
Plains Valleys and Low lands colored Green
ARCTIC OCEAN
ATLANTIC OCEAN
PACIFIC OCEAN
INDIAN OCEAN
ARABIAN SEA
BAY OF BENGAL
CHINA SEA
Longitude East of Greenwich
Long. East of 80 Greenwich
Lat. of Granada
Lat. of Oregon
Lat. of California
Lat. of Mexico
Lat. of New Granada
Lat. of Peru
Lat. of Brazil
Lat. of Guiana
Lat. of West Indias
Lat. of United States
Equator
Tropic of Cancer
Arctic Circle
Behring Strait
Spitzbergen
C. Severo Vostochnoi
New Siberia
Lena R.
Yenisei R.
Obi R.
Irtish R.
Volga R.
Caspian Sea
Aral Sea
Black Sea
Mediterranean Sea
Red Sea
Persian Gulf
Sea of Okhotsk
Sea of Japan
Kamtchatka Sea
Yellow Sea
Gulf of Siam
Java Sea
Celebes Sea
Timor Sea
Arafura Sea
Gulf of Carpentaria
Sea of Marmora
Gulf of Aden
Gulf of Cambay
Gulf of Manaar
Gulf of Martaban
Gulf of Tonquin
Sea of Azof
Sea of Aral
Sea of Marmora
Sea of Molucca
Sea of Celebes
Sea of Timor
Sea of Arafura
Sea of Japan
Sea of Okhotsk
Sea of Kamtchatka
Sea of Yellow
Sea of China
Sea of Java
Sea of Celebes
Sea of Timor
Sea of Arafura
Sea of Gulf of Carpentaria
Sea of Gulf of Martaban
Sea of Gulf of Tonquin
Sea of Gulf of Siam
Sea of Gulf of Cambay
Sea of Gulf of Manaar
Sea of Gulf of Aden
Sea of Gulf of Persian Gulf
Sea of Gulf of Red Sea
Sea of Gulf of Mediterranean Sea
Sea of Gulf of Black Sea
Sea of Gulf of Caspian Sea
Sea of Gulf of Aral Sea
Sea of Gulf of Azof
Sea of Gulf of Marmora
Sea of Gulf of Molucca
Sea of Gulf of Celebes
Sea of Gulf of Timor
Sea of Gulf of Arafura
Sea of Gulf of Japan
Sea of Gulf of Okhotsk
Sea of Gulf of Kamtchatka
Sea of Gulf of Yellow
Sea of Gulf of China
Sea of Gulf of Java
Sea of Gulf of Celebes
Sea of Gulf of Timor
Sea of Gulf of Arafura
Sea of Gulf of Gulf of Carpentaria
Sea of Gulf of Gulf of Martaban
Sea of Gulf of Gulf of Tonquin
Sea of Gulf of Gulf of Siam
Sea of Gulf of Gulf of Cambay
Sea of Gulf of Gulf of Manaar
Sea of Gulf of Gulf of Aden
Sea of Gulf of Gulf of Persian Gulf
Sea of Gulf of Gulf of Red Sea
Sea of Gulf of Gulf of Mediterranean Sea
Sea of Gulf of Gulf of Black Sea
Sea of Gulf of Gulf of Caspian Sea
Sea of Gulf of Gulf of Aral Sea
Sea of Gulf of Gulf of Azof
Sea of Gulf of Gulf of Marmora
Sea of Gulf of Gulf of Molucca
Sea of Gulf of Gulf of Celebes
Sea of Gulf of Gulf of Timor
Sea of Gulf of Gulf of Arafura
Sea of Gulf of Gulf of Japan
Sea of Gulf of Gulf of Okhotsk
Sea of Gulf of Gulf of Kamtchatka
Sea of Gulf of Gulf of Yellow
Sea of Gulf of Gulf of China
Sea of Gulf of Gulf of Java
Sea of Gulf of Gulf of Celebes
Sea of Gulf of Gulf of Timor
Sea of Gulf of Gulf of Arafura
Sea of Gulf of Gulf of Gulf of Carpentaria
Sea of Gulf of Gulf of Gulf of Martaban
Sea of Gulf of Gulf of Gulf of Tonquin
Sea of Gulf of Gulf of Gulf of Siam
Sea of Gulf of Gulf of Gulf of Cambay
Sea of Gulf of Gulf of Gulf of Manaar
Sea of Gulf of Gulf of Gulf of Aden
Sea of Gulf of Gulf of Gulf of Persian Gulf
Sea of Gulf of Gulf of Gulf of Red Sea
Sea of Gulf of Gulf of Gulf of Mediterranean Sea
Sea of Gulf of Gulf of Gulf of Black Sea
Sea of Gulf of Gulf of Gulf of Caspian Sea
Sea of Gulf of Gulf of Gulf of Aral Sea
Sea of Gulf of Gulf of Gulf of Azof
Sea of Gulf of Gulf of Gulf of Marmora
Sea of Gulf of Gulf of Gulf of Molucca
Sea of Gulf of Gulf of Gulf of Celebes
Sea of Gulf of Gulf of Gulf of Timor
Sea of Gulf of Gulf of Gulf of Arafura
Sea of Gulf of Gulf of Gulf of Japan
Sea of Gulf of Gulf of Gulf of Okhotsk
Sea of Gulf of Gulf of Gulf of Kamtchatka
Sea of Gulf of Gulf of Gulf of Yellow
Sea of Gulf of Gulf of Gulf of China
Sea of Gulf of Gulf of Gulf of Java
Sea of Gulf of Gulf of Gulf of Celebes
Sea of Gulf of Gulf of Gulf of Timor
Sea of Gulf of Gulf of Gulf of Arafura
Sea of Gulf

Entered according to Act of Congress in the year 1856 by Hickling Swan & Brown in the Clerks Office of the District Court of Massachusetts

according to Act of Congress in the year 1844 by Hickling, Swan & Brown in the Clerks Office of the District Court of Massachusetts

Engraved W. Hood

Entered according to Act of Congress in the year 1846 by Mitchell Swan & Brown in the Clerks Office of the District Court of Massachusetts


NORTH AMERICA
EUROPE
ASIA
AFRICA
SOUTH AMERICA
AUSTRALIA
Great Salt L.
Rockies
Tropic
Cancer
Equator
Capricorn
Mts of the Moon
Monsoons
Red Sea
Arabian Gulf
Arad Sea
Caspian Sea
Mediterranean Sea
Niger R.
Amazon R.
La Plata
Falkland Islands
China
A1
A2
A3
N.E. Trades
S.E. Trades
S.W. Passage Winds
Variables
Westerlies
Variables
Variables
Variables

THE DISTRIBUTION OF

RAIN AND SNOW

OVER THE GLOBE

Designed to Illustrate

CARTER'S

PHYSICAL GEOGRAPHY.

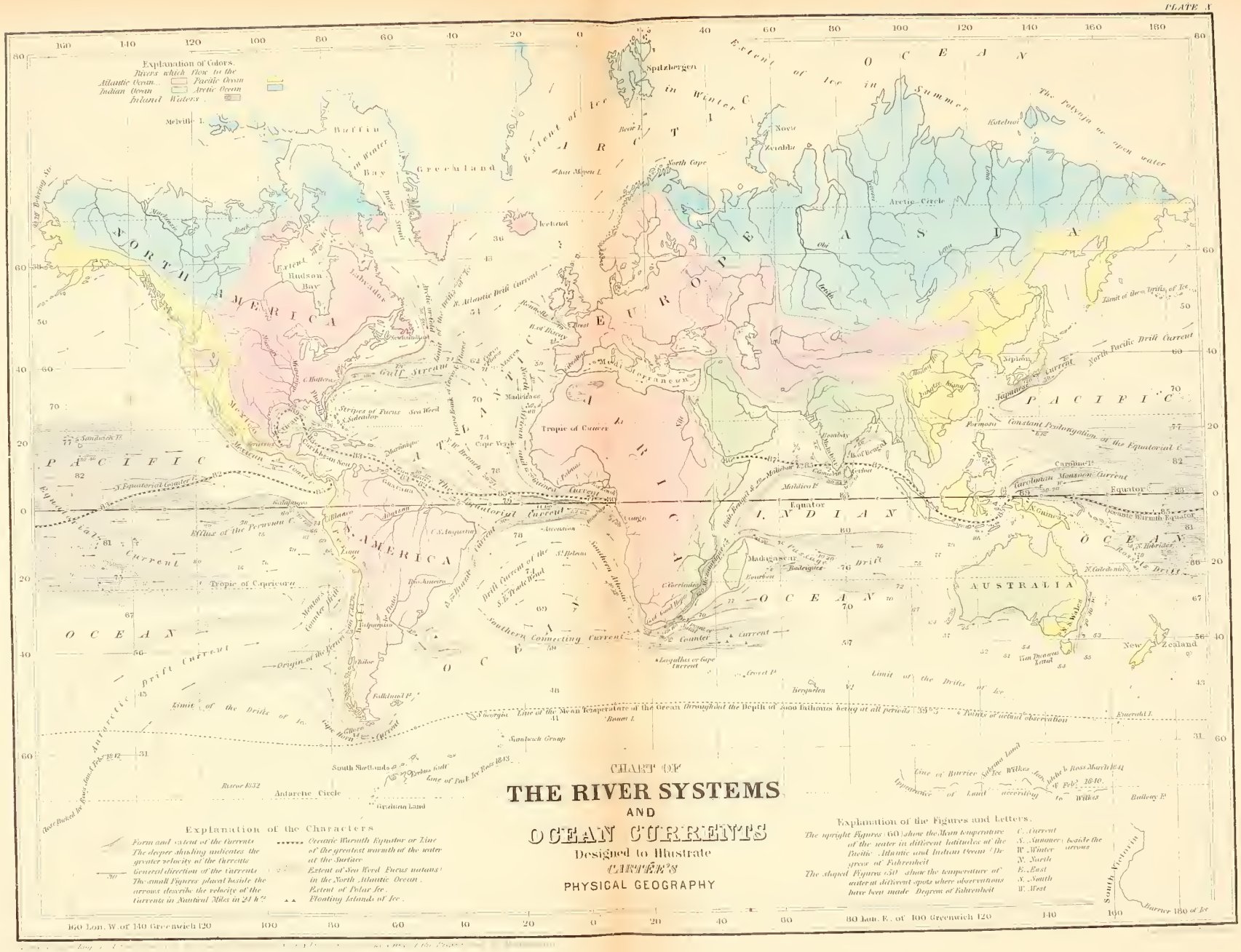
Explanation.

The Shading exhibits the comparative amount of Rain in the different parts of the Globe. The figures denote the average annual amount of Rain in inches.

Colors.

Rains prevailing in certain Seasons are distinguished thus Summer Rains — Autumn Rains — Winter Rains

Entered according to Act of Congress in the year ... by Gray & Hickling in the Clerks Office of the District Court of Massachusetts


Explanation of Colors.
Rivers which flow to the
Atlantic Ocean
Pacific Ocean
Indian Ocean
Arctic Ocean
Inland Waters
Extent of Ice in Winter
Extent of Ice in Summer
The Polynya or open water
Spitzbergen
Melville I.
Baffin Bay
Greenland
Iceland
North Cape
Arctic Circle
NORTH AMERICA
EUROPE
ASIA
Hudson Bay
Gulf Stream
N. Atlantic Drift Current
North Pacific Drift Current
Equatorial Current
PACIFIC OCEAN
ATLANTIC OCEAN
INDIAN OCEAN
Tropic of Cancer
Equator
Tropic of Capricorn
S. AMERICA
AUSTRALIA
Madagascar
New Zealand
Antarctic drift current
Limit of the Drifts of Ice
Line of the Mean Temperature of the Ocean throughout the Depth of 1000 Fathoms being at all periods 35°
Points of actual observation
Sandwich Group
South Shetlands
Graham Land
Antarctic Circle
Cape Horn Current
Southern Connecting Current
Agulhas or Cape Current
Brazil Current
Mozambique Current
Equatorial Counter Current
Trade Winds
Monsoons
Constant Prolongation of the Equatorial C.
Caroline Is.
Formosa
Japan
Sandwich Is.
Falkland Is.
Kerguelen I.
Amsterdam I.
St. Helena
Ascension
Cape Verde
Bermudas
Azores
Canaries
Madeira
Malabar
Coromandel
Bengal
Arabia
Persia
Zanzibar
Mozambique
Mauritius
Bourbon
Timor
Java
Sumatra
Ceylon
Philippines
Moluccas
Guinea
N. Zealand
N. Caledonia
N. Hebrides
Tonga Is.
Society Is.
Marquesas Is.
Galapagos
Peru
Chili
Patagonia
Terra del Fuego
Tierra del Fuego
Falkland Is.
Cape Horn
Cape Good Hope
Cape Agulhas
Cape Leeuwin
Van Diemens Land
Sandwich Land
Graham Land
Weddell Sea
Ross Sea
Victoria Land
Wilkes
Ross March 1841
Balleny I.
Emerald I.
Bouvet I.
Kerguelen I.
Amsterdam I.
Prince Edwards I.
Crozet Is.
Heard I.
Macquarie I.
Auckland Is.
Campbell I.
Bounty Is.
Chatham I.
Norfolk I.
Lord Howe I.
Solomon Is.
New Britain
New Ireland
New Guinea
Celebes
Borneo
Sumatra
Java
Timor
Ceylon
Maldives
Laccadives
Malabar
Coromandel
Bengal
Arabia
Persia
Zanzibar
Mozambique
Madagascar
Mauritius
Bourbon
Comoro Is.
Seychelles
Abyssinia
Egypt
Red Sea
Mediterranean
Madeira
Canaries
Cape Verde
Azores
Bermudas
Iceland
Spitzbergen
Nova Zembla
Kolguev
Lapland
Sweden
Norway
Russia
Siberia
Kamtschatka
Japan
Formosa
Philippines
Moluccas

Northern Zone of Perpetual Ice and Snow
only partially thawed in Summer, Vegetation limited to a few Lichens, Mosses, Grasses, and Saxifrages
Climate of Mosses & Berries
Northern Zone of Coniferous and Deciduous Forests
characterized by Extensive Forests, Rich Meadows and Fruitful Plains
Climate of European Grains & Fruits
Climate of European & Tropical Grains & Fruits
Zone of Periodical or Tropical Rains
characterized by richness & variety of organic life, great trees, evergreen shrubs, Spice plants, Palms and Bananas
Climate of Tropical Grains
Climate of European & Tropical Grains & Fruits
Climate of European and Tropical Grains of Fruit Trees & of the Tropical Proteaceæ
Characterized by the greatest variety of plants, edible juicy fruits, are here seldom indigenous, while the Northern family of fruit trees is entirely absent
Equator
Tropic of Cancer
Tropic of Capricorn
Equator
Climate of Mosses & Berries
Northern Zone of Perpetual Unperiodical Rains
Climate of European Grains & Fruits
Climate of Tropical Grains & Palms and Bananas
Climate of European & Tropical Grains & Fruits
Climate of European and Tropical Grains of Fruit Trees & of the Tropical Proteaceæ
Tropic of Cancer
Tropic of Capricorn
Desert, destitute of Vegetation
Tropical Africa, is from the dryness of its soil, much less fertile than the Tropical regions of the other Continents
Palms
Date palm
Cocoa palm
Sugar Cane
Rice
Cotton
Coffee tree
Maize, Sugar, Melon, Rice, Banana, Tamarind, Manioc, Pine-apple, Orange
Ebony
Aloe, Heath, Orang, Lrs. Lily
Tulip Tree
Cocoa, Indigo, Sugar, Cotton, Orange, Pine-apple, Pomegranate, Melon, Banana, Cocoa palm, Fan palm, Date palm, Cinnamon, Pepper
Areca, Cabbage-palm, Breadfruit tree, Ginger, Pepper, Nutmeg, Clove, Cinnamon, Teak tree
Tree fern, Heath, Mimosa, Acacia, Myrtle, Fan-palm, Wheat, Maize, Grass, Orange, Peach
Wheat, Barley, Oats, Rye
Sandwich Is. Sandalwood Acacia
Marquesas Is. Society Is. Sandalwood Boxwood Low Is.
Breadfruit-tree
Low palm Breadfruit-tree
New Caledonia
Friendly Is.
Sugar Cane, Yams, Indigo, Pepper, Coffee, Orange, Pine-apple, Banana, Cocoa palm, Cabbage palm, Oil palm, Breadfruit tree, Tea tree, Fan-palm, Cinchona, Coco, Cacao, Breadfruit, Gourd, Arauaria, Manioc, Paraguay tea, Rice
Maize, Rice, Wheat, Barley, Tobacco, Hemp, Flax, Olive, Indigo, Mulberry, Potat, Millet
In Chili Arauaria, Beech, Oak, Potato, Quinoa, Native Potato
Wheat, Barley, Oats
Mosses, Ferns, Tree Shrubs, Birch, Beech
Andes of Quito
Andes of Peru
Andes of Chili
Mts of Mexico
Himalaya Mts
Rocky Mountains
Mountains of Africa
Andes of Patagonia
Table land of S. Africa
Alps
Mts of Norway
Iceland
Scale of Thousand feet
Lat. N.
Western Hemisphere
Lat. S.
Lat. S.
Eastern Hemisphere
Lat. N.

DISTRIBUTION OF PLANTS IN A VERTICAL DIRECTION

The white peaks show the portions of mountains covered with perpetual snow in different latitudes
The colors correspond with those on the map

THE DISTRIBUTION OF

TREES, SHRUBS, GRAINS & FRUITS.

ACCORDING TO ZONES OF CLIMATE & MOISTURE

Designed to Illustrate CARTÉE'S PHYSICAL GEOGRAPHY.

Northern Zone of the Arctic Fauna
Characterized by its uniformity, few species, but an immense number of individuals. Birds very plenty but generally of uniform somber hues. No Reptiles
North Zone of the Temperate Fauna
Characterized by greater variety than the Arctic Animal and land animals more graceful. Prevailing types similar in both continents the same species represented by
Zone of the Tropical Fauna
Characterized by extreme variety comprising all the principal types & containing numerous genera & species distinguished by bright skins and brilliant plumage
Southern Zone of the Temperate Fauna
Characterized by striking contrasts between the animals of S. America, S. Africa, and Australia
Equator
Tropic of Cancer
Tropic of Capricorn
Climate line of 70° Fah.
Line of 30° Fah.
Right Whale
Sperm Whale
Seals
Penguins
Polar Bear
Grizzly Bear
Rocky Mt. Sheep
Rocky Mt. Squirrel
Beaver
Wolf
Brown Bear
Sable
Musk Deer
Moose Deer or Elk
Wild Boar
Stag
Bactrian Camel
Royal Tiger
Golden Pheasant
Rhinoceros
Elephant
Lion
Giraffe
Zebra
Ostrich
Crocodile
Hippopotamus
Monkeys
Macaw
Tapir
Ocelot
Boa Constrictor
Vampire Bat
Sloth
Humming Birds
Flamingo
Jackal
Turtle
Flying Fish
Kangaroos
Emu
Grey Parrots
Kiwi Kiwi
Cockatoo
Ornithorynchus
Black Swan
Sharks
Penguins
Reindeer
Walrus
Cod
Herring
Mackarel
Eider Duck
Sea Lion
Great Owl
Snowy Owl
Polar Bear
Rattlesnake
Crocodile
Alligator
Canadian Goose
Golden Eagle
Prairie Dog
Grouse
Turkey
Humming Birds
Parrots
Monkeys
Macaw
Tapir
Ocelot
Boa Constrictor
Vampire Bat
Sloth
Alligator
Crocodile
Flamingo
Hippopotamus
Jackal
Ostrich
Zebra
Giraffe
Lion
Tiger
Elephant
Rhinoceros
Camel
Monkey
Lemur
Turtle
Flying Fish
Kangaroos
Emu
Grey Parrots
Kiwi Kiwi
Cockatoo
Ornithorynchus
Black Swan
Sharks
Penguins
Right Whale
Sperm Whale
Seals

ETHNOGRAPHIC MAP

OF THE WORLD

Showing the Present Distribution

OF THE LEADING

RACES OF MAN,

Designed to Illustrate

CARTEE'S

PHYSICAL GEOGRAPHY.

Reference

Caucasian
1 *Indo European*
1a *Indo European mixed*
1b *Syro Arabian*
2 *Mongolian*
3 *Negro*
4 *American*
5 *Malay*

Jan 1 1913